

CLAIMS

1. A pipe joint comprising: a cylindrical joint body having a first end on one side in an axial direction and a second end on the other side in the axial direction to be inserted into a joint mounting hole of a fluid pressure apparatus from a side of the first end; a tube connecting hole open on a side of the second end of the joint body; a chuck member provided in the joint body to be locked to a piping tube inserted into the tube connecting hole; a sealing member for sealing a periphery of the tube; a release member for releasing locking of the chuck member to the tube; and a pull-out preventing ring provided to an outer periphery of the joint body to prevent the joint body from being pulled out of the joint mounting hole,
- wherein the pull-out preventing ring is formed separately from the joint body, elastically deformable in a radial direction, and has on its outer peripheral face one or more annular edge to be locked to a hole wall of the joint mounting hole.
2. A pipe joint according to claim 1, wherein the annular edge(s) is(are) formed in a position close to an axial base end portion in the axial direction of the pull-out preventing ring with its(their) nose(s) directed toward the second end of the joint body.
3. A pipe joint according to claim 1, wherein the pull-out preventing ring has two annular edges in positions adjacent to

each other in an axial direction.

4. A pipe joint according to claim 3, wherein a space portion
for housing a chip which has flaked away from the hole wall of
5 the joint mounting hole is provided between the two annular edges .

5. A pipe joint according claim 1, wherein the pull-out
preventing ring is in a split-ring shape having at a portion
of a circumference thereof a split.

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6. A pipe joint according to claim 1, wherein an angle of a
section of the annular edge is 90° or smaller.

7. A pipe joint according to claim 1, wherein the pull-out
15 preventing ring has two annular edges close to an axial direction
base edge portion, and the annular edge(s) is(are) formed with
its(their) nose(s) directed toward the second end of the joint
body, having a space portion for housing a chip which has flaked
away from the hole wall of the joint mounting hole provided between
20 the two annular edges.

8. A pipe joint according to claim 1, wherein the pull-out
preventing ring is fitted in a recessed portion formed on an
outer periphery of the joint body with degrees of freedom in
25 axial and radial directions.

9. A pipe joint according to claim 8, wherein the joint body

is formed of a first body portion on the side of the first end,
a second body portion on the side of the second end, and an
intermediate third body portion connecting both the body portions,
the third body portion has a large diameter portion to be fitted
5 over an outside of the first body portion, a small diameter portion
to be fitted in the second body portion, and the recessed portion
divided by the large diameter portion and the second body portion
on an outer periphery of the small diameter portion, and the
pull-out preventing ring is fitted in the recessed portion.

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10. A pipe joint according to claim 9, wherein the annular
edge(s) is(are) formed in a position close to an axial base end
portion in the axial direction of the pull-out preventing ring
with its(their) nose(s) directed toward the second end of the
15 joint body.

11. A pipe joint according to claim 9, wherein the pull-out
preventing ring has two annular edges in positions adjacent to
each other in an axial direction.

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12. A pipe joint according to claim 11, wherein a space portion
for housing a chip which has flaked away from the hole wall of
the joint mounting hole is provided between the two annular edges .

25 13. A pipe joint according claim 9, wherein the pull-out
preventing ring is in a split-ring shape having at a portion
of a circumference thereof a split.

14. A pipe joint according to claim 9, wherein the pull-out preventing ring has two annular edges close to an axial direction base edge portion, and the annular edge(s) is(are) formed with its(their) nose(s) directed toward the second end of the joint
5 body, having a space portion for housing a chip which has flaked away from the hole wall of the joint mounting hole provided between the two annular edges.